

xEHR Techport

Exploration missions beyond low Earth orbit will experience significant communication delays and communication black outs that will necessitate asynchronous, increasingly Earth-independent provision of medical care to onboard crew. In this new paradigm, the Crew Medical Officer (CMO), other Crewmembers, and ground support will have to quickly, efficiently, and independently, view medical data, make decisions, and relay important information. Currently, the NASA electronic health record (EHR) is intended only for ground use and is not accessible to in-mission ISS crew for medical decision support and communication. An EHR capable of providing the crew health data, medical store-and-forward communications, and necessary medical administrative tools is critical in enabling NASA's standard of healthcare during increasingly autonomous operations.

The Exploration Medical Integrated Product Team (XMIPT) project called Medical Exploration Development and Implementation Scoping (MEDIScope) developed and reviewed objectives and concept of operations for an exploration EHR (xEHR) with project stakeholders, developed preliminary high-level requirements, and coordinated the handoff of the project to a design and implementation team at the Johnson Space Center (JSC). This JSC team will develop system requirements for the xEHR with inputs from subject matter experts. Following final requirements development, a team will be chosen to develop the xEHR and to conduct a demonstration on a future exploration vehicle such as Gateway.